

FIG. 1

gaattccgctc	atggcgctcgc	atggcgctcgc	atggcgctcgc	vagccaaatt	cgtctgcgaa
gaagaaagag	gagaagggga	agaacatcca	ggtaggtggtg	agatgcagac	catttaattt
ggcagagcgg	aaagctagcg	cccatttcaat	agtagaatgt	gatcctgtac	gaaaagaagt
tagtgtagca	actggaggat	tggctgacaa	gagctcaagg	aaaacataca	cttttgatat
ggtgtttgga	gcattctacta	aacagattga	tgtttaccga	agtgttgttt	gtccaattct
ggatgaagtt	attatgggct	ataattgcac	tatctttgcg	tatggccaaa	ctggcactgg
aaaaactttt	acaatggaag	gtgaaaggct	acctaataga	gagtatacct	gggaagagga
tcccttggtc	ggtataattc	cacgtaccct	tcatcaaat	tttgagaaac	ttactgataa
tggtagtgaa	ttttcagtc	aagtgtctct	gttggagatc	tataatgaag	agctttttga
tcttcttaat	ccatcatctg	atgtttctga	gagactacag	atgtttgatg	atccccgtaa
caagagagga	gtgataatta	aagggttaga	agaaattaca	gtacaagaac	aggatgaagt
ctatcaaat	ttagaaaagg	gggcagcaaa	aaggacaact	gcagctactc	tgatgaatgc
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tgatggagaa	gagcttggtt	aaatcgga	gttgaacttg	gttgatcttg	caggaaagtga
aaacattggc	cggtcttgga	ctgttgataa	gagagctcgg	gaagctggaa	atataaatca
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atctataatt	gcaacaattt	ctcctgcac	tctcaatctt	gaggaaactc	tgagtacatt
ggaatatgct	catagagcaa	agaacatatt	gaataagcct	gaagtgaatc	agaaactcac
caaaaaagct	cttattaagg	agtatacgg	ggagatagaa	cgtttaaaac	gagatcttgc
tgcagcccg	gagaaaaatg	gagtgtatat	ttctgaagaa	aatttttagag	tcctgagtgg
aaaatttaact	gttcaagaag	agcagattgt	agaattgatt	gaaaaaatgt	gtgctgttga
ggaggagctg	aatagggtta	cagagttgtt	tatggataat	aaaaatgaac	ttgaccagtg
taaatctgac	ctgcaaaaata	aaacacaaga	acttgaacc	actcaaaaac	atltgcaaga
aactaaatta	caacttggtt	aagaagaata	tatcacatca	gctttggaaa	gtactgagga
gaaacttcat	gatgctgcc	gcaagatgat	taacacagtt	gaagaaacta	caaaagatgt
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tcaggatatt	tttggcaaaa	acctgaatag	tctgtttaat	aatatgggaag	aattaattaa
ggatggcagc	tcaaagcaaa	aggccatgct	agaagtacat	aagaccttat	ttggtaatgt
gctgtcttcc	agtgtctctg	cattagatac	cattactaca	gtagcacttg	gatctctcac
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tcaaaaaaaa	aggaaactcag	atggctttct	cagtatactg	tgtaacaatc	tacatgaact
acaagaaaat	accattttgtt	ccttgggttga	gtcacaaaaag	caatgtggaa	acctaaactga
agacctgaag	acaataaaagc	agaccattc	ccaggaaactt	tgcaagttaa	tgaatctttg
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tgtccaggaa	aataacagc	agaaatctaa	ggatatagtc	aacaaaatga	cttttcacag
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ggttgttaagc	caatgttgtg	aggcttcaag	ttcagacatc	actgagaaat	gagatggacg
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taaaattgata	gcacaaaatc	tagaacttaa	tgaaaccata	aaaattgggt	tgactaaagct
taattgcttt	ctggaacagg	atctgaaact	ggatatccca	acaggatcga	caccacagag
gaaaagtta	ttatacccat	caacactgg	agaactgaa	ccacgtgaac	atctccttga
tcagctgaaa	aggaaacagc	ctgagctgtt	aatgatgcta	aactgttcag	aaaacaacaa
agaagagaca	attccggatg	tggatgtaga	agaggcagtt	ctggggcag	atactgaaga
acctctaagt	caagagccat	ctgtagatgc	tgggtgtggat	tggtcatcaa	ttggcgggg
tccattttt	cagcataaaa	aatcacatgg	aaaagacaaa	gaaaacagag	gcattaacac
actggagagg	tctaaagtgg	actaaagtgg	agagcacttg	gttacaaga	gcagattacc
tctgcgagcc	cagatcaacc	tttaattcac	ttgggggttg	gcaattttat	ttttaaagaa
aaacttaaaa	ataaaacctg	aaaccccaga	acttgagcct	tgtgtataga	ttttaaaaga
atatatatat	cagccggggc	cgtggctcta	gctgtaatcc	cagctaactt	tggaggctga
ggcgggtgga	ttgcttgagc	ccaggagttt	gagaccagcc	tggccaacgt	gcgctaaaac
cttctgtctt	gttaaaaaatt	agccggggcgt	ggtgggcaca	ctcctgtaat	cccagctact
gggggagctg	aggcacgaga	atcacttgaa	cccagaagcg	gggttgagc	gagccaaagg
tacaccacta	cactccagcc	tgggcaacag	agcaagactc	ggtctcaaaa	ataaaattta
aaaaagatat	aaggcagtac	tgtaaaattca	gttgaatttt	gatattctacc	catttttctg
tcatccctat	agttcacttt	gtattaaatt	gggttcattt	tgggatttgc	aatgtaata
	cgtattttcta	gttttcatat	aaagtagttc	ttttaggaat	tc

FIG. 2

MASQPNSSAKKKEEGKNIQVVVRCRPFNLAERKASAHSIVECD
PVRKEVSVRTGGLADKSSRKTYTFDMVFGASTKQIDVYRSVVCPIILDEVIMGYNCTIF
AYGQTGTGKTFTMEGERSPNEEYTWEEDPLAGIIPRTLHQIFEKLTNGTEFSVKVSL
LEIYNEELFDLLNPSSDVSERLQMFDDPRNKRGVIIKGLEEITVHNKDEVYQILEKGA
AKRTTAATLMNAYSSRSHSVFSVTIHMKETTIDGEELVKIGKLNLDLAGSENIGRSG
AVDKRAREAGNINQSLTLGRVITALVERTPHVPYRESKLTRILQDSLGGRTTSIIA
TISPASLNLEETLSTLEYAHRAKNILNKPEVNQKLTKKALIKKEYTEEIERLKRDLAAA
REKNGVYISEENFRVMGKLTVQEEQIVELIEKIGAVEEELNVRTALFMDNKNELDQC
KSDLQNKQTQLETTQKHLQETKLQLVKEEYITSALESTEEKLHDAASKLLNTVEETTK
DVSGLSKLDRAKKAQDQHNAAQDDIFGKNLSLFNNMEELIKDGSQKAMLEVHKT
FGNLLSSVSALDTITTVALGSLTSIPENVSTHVSQIFNMILKEQSLAAESKTVLQEL
INVLTDLSSLEMLSPTVVSILKINSQKHFKTSLTVADKIEDQKKRNSDGFSLI
LCNNLEHELQENTICSILVESQKQCGNLTEDLKTIKQTHSQELCKLMNWTERFCALEEK
CENIQKPLSSVQENIQKSKDIVNKMTFHSQKFCADSDGFSQELRNFNQEGTKLVEES
VKHSDKLNNGNLEKISQITEQRCESLNTRTVYFSEQWSSLNREQEELHNLLEVVSQCC
EASSSDITEKSDGRKAAHEKQHNIFLDQMTIDEDKLIQNLELNETIKIGLTKLNCFL
EQDLKLDIPTGTTPQRKSYLYPSTLVRTEPREHLLDQLKRKQPELLMMLNCSENNKEE
TIPDVDVEEAVLGQYTEEPLSQEPSVDAGVDCSSIGGVPPFQHKKSHGKDKENRGINT
LERSKVEETTEHLVTKSRLPLRAQINL

FIG. 3

atggcgtgccagccaaattcgtctgcgaagaagaaaggagagaaggggaagaacatccaggtggtggtgaga
tgcagaccatttaatttggcagagcggaaagctagcgcccattcaatagtagaatgtgatcctgtacgaaaa
gaagttagtgtacgaactggaggattggctgacaagagctcaaggaaaacatacacttttgatatggtgttt
ggagcatctactaaacagattgatgtttaccgaggtgtgtttgtccaattctggatgaagttattatgggc
tataattgcactatctttgcgtatggccaaactggcactggaaaaacttttacaatggaaggtgaaaggtca
cctaataagaggtatacctgggaagaggatcccttggctggtataattccacgtacccttcatcaaattttt
gagaaacttactgataatggtactgaattttcagtcaaagtgtctctgttggagatctataatgaagagctt
tttgatcttcttaatccatcatctgatgtttctgagagactacagatgtttgatgatccccgtaacaagaga
ggagtgataattaaagggttagaagaaattacagtacacaacaaggatgaagtgtatcaaatttttagaaaag
ggggcagcaaaaaggacaactgcagctactctgatgaatgcatactctagtcgttcccactcagttttctct
gttacaatacatatgaaagaaactacgattgatggagaagagcttggttaaaatcggaaagttgaacttggtt
gatcttgagggaagtgaaaacattggccgttctggagctgttgataagagagctcgggaagctggaaatata
aatcaatccctgttgactttgggaagggtcattactgccctttagaagaacacctcatgttccttatcga
gaatctaaactaactagaatcctccaggattctcttgaggggcgtacaagaacatctataattgcaacaatt
tctcctgcatctctcaatcttgaggaaactctgagtacattggaatatgctcatagagcaaagaacatattg
ctcgaggggtaccgagcagaagctgatcagcgaggaggacctgatcgagcaccaccaccaccactga

FIG. 4

MACQPNSSAKKKEEGKNIQVVVRCRPFNLAERKASAHSIVECDPVRKEVSVRTGGLADKSSRKTYTFDMVF
GASTKQIDVYRSVVCPIILDEVIMGYNCTIFAYGQTGTGKTFTMEGERSPNEEYTWEEDPLAGIIPRTLHQIF
EKLT DNGTEFSVKVSLLEIYNEELFDLLNPSSDVSERLQMFDDPRNKRGV I I KGLEEITVHNKDEVYGILEK
GAAKR TTAATLMNAYSSRSHSVFSVTIHMKETTIDGEE LVKIGKLN LV DLAGSENIGRSGAVDKRAREAGNI
NQSLTLGRVITALVERTPHVPYRESKLTRILQDSLGGRTRTSIIATISPASLNLEETLSTLEYAHRKNIL
LEQTEGKLISEEDLIEHHHHH

FIG. 5

atggcggtgcccagccaaattcgtctgccaagaagaagaggagaaggggaagaacatccaggtggtggtgaga
tgcagaccatttaatttggcagagcggaaagctagcgccattcaatagtagaatgtgatcctgtacgaaaa
Gaagttagtgtagaactggaggattggctgacaagagctcaaggaaaacatacacttttgatatggtggtt
Ggagcatctactaaacagattgatgtttaccgaggtgttgtttgtccaattctggatgaagttattatgggc
Tataattgcactatctttgctatggccaaactggcactggaaaaacttttacaatggaaggtgaaaggtca
Cctaataagaggtatacctgggaagaggatcccttggctggtataattccacgtacccttcatcaaattttt
Gagaaacttactgataatggtactgaattttcagtcaaaagtgtctctgttggagatctataatgaagagctt
Tttgatcttcttaatccatcatctgatgtttctgagagactacagatgtttgatgatccccgtaacaagaga
Ggagtgataattaaagggtttagaagaaattacagtacacaacaaggatgaagtgtatcaaatttttagaaaag
Ggggcagcaaaaaggacaactgcagctactctgatgaatgcatactctagtcttccactcagttttctct
Gttacaatacatatgaaagaaactacgattgatggagaagagcttgttaaaatcggaaggtgaacttgggt
Gatcttgcaggaagtgaaaacattggccgttctggagctgttgataagagagctcgggaagctggaaatata
aatcaatccctgttgactttgggaagggtcattactgcccttgtagaagaacacctcatgttccttatoga
gaatctaaactaactagaatcctccaggattctcttggaggcgctacaagaacatctataattgcaacaatt
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aaaacacaagaacttgaaaccactcaaaaacatttgcaagaaactaaattacaacttggttaagaagaatat
atcacatcagctttggaaagtactgaggagaaaactcgaggggtaccgagcagaagctgatcagcaggaggac
ctgatcgcagcaccaccaccaccactga

FIG. 6

MACQPNSSAKKKEEGKNIQVVVRCRPFNLAERKASAHSIVECDPVRKEVSVRTGGGLADKSSRKTYTFDMVF
GASTKQIDVYRSVVCPIIDEVIMGYNCTIFAYGQTGTGKTFTMEGERSPNEEYTWEEDPLAGIIPRTLHQIF
EKLTDNGTEFSVKVSLLEIYNEELFDLLNPSSDVSERLQMFDPRNKRGVIIKGLEEITVHNKDEVYGILEK
GAAKRTTAATLMNAYSSRSHSVFSVTIHMKETTIDGEELVKIGKLNLDLAGSENIGRSGAVDKRAREAGNI
NQSLTLGRVITALVERTPHVPYRESKLTRILQDSLGGRTRTSIIATISPASLNLEETLSTLEYAHRANKIL
NKPEVNQKLTKKALIKETEEIERLKRDLAAAREKNGVYISEENFRVMSGKLTVQEEQIVELIEKIGAVEEE
LNRVTELFMDNKNELDQCKSDLQNKTOLETTQKHLGETKLGLVKEEYITSALESTEEKLEQTEGLISEED
LIEHHHHHH

FIG. 7

atggcggtgccagccaaattcgtctgcgaagaagaagaggagaaggggaagaacatccaggtggtggtgaga
tgcagaccatttaatttggcagagcggaaagctagcgccattcaatagtagaatgtgatcctgtacgaaaa
gaagttagtgtacgaactggaggattggctgacaagagctcaaggaaaaacatacacttttgatatggtgttt
ggagcatctactaaacagattgatgtttaccgaggtgtgtgtttgtccaattctggatgaagttattatgggc
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gatcttgcaggaagtgaaaacattggccgttctggagctggttgataagagagctcggaagctggaaatata
aatcaatccctgttgactttgggaaggggtcattactgcccttgtagaaagaacacctcatgttcccttatcga
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tctcctgcatctctcaatcttgaggaaactctgagtacattggaatatgctcatagagcaaagaacatattg
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gaagctcaggatatttttggcaaaaacctgaatagtctgtttaataatatggaagaattaattaaggatggc
agcctcgagggtaccgagcagaagctgatcagcgaggaggacctgatcgagcaccaccaccaccactga

FIG. 8

MACQPNSSAKKKEEGKNIQVVVRCRPFNLAERKASAHSIVECDPVRKEVSVRTGGLADKSSRKTYTFDMVF
GASTKQIDVYRSVVCPIILDEVIMGYNCTIFAYGQTGTGKTFTMEGERSPNEEYTWEEEDPLAGIIPRTLHQIF
EKLTDNGTEFSVKVSLLEIYNEELFDLLNPSSDVSERLQMFDDPRNKRGVIIKGLEEITVHNKDEVYGILEK
GAAKRTTAATLMNAYSSRSHSVFSVTIHMKETTIDGEELVKIGKLNLDLAGSENIGRSGAVDKRAREAGNI
NQSLTLGRVITALVERTPHVPYRESKLTRILQDSLGGRTRTSIIATISPASLNLEETLSTLEYAHRANKIL
NKPEVNQKLTKKALIKYEETEEIERLKRDAAAAREKNGVYISEENFRVMSGKLTVQEEQIVELIEKIGAVEEE
LNRVTELFMDNKNELDQCKSDLQNKQTQELETTQKHLGETKLGLVKEEYITSALESTEEKLHDAASKLNTVE
ETTKDVSLHSLDRKKAVDQHNAEAQDIFGKNLNSLFNNMEELIKDGSLEQTEGKLISEEDLIEHHHHH

FIG. 9

atggcgtgcccagccaaattcgtctgcgaagaagaaagaggagaaggggaagaacatccaggtggtggtgaga
tgcagaccatttaatttggcagagcggaagctagcgccattcaatagtagaatgtgatcctgtacgaaaa
gaagttagtgtacgaactggaggattggctgacaagagctcaaggaaaacatacacttttgatatggtgttt
ggagcatctactaaacagattgatgtttaccgaggtgttgtttgtccaattctggatgaagttattatgggc
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cctaataagagtataacctgggaagaggatcccttggctggtataattccacgtacccttcataaaatttt
gagaaacttactgataatggtactgaattttcagtcaaaagtgtctctgttggagatctataatgaagagctt
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ggagtgataaattaaaggtttagaagaaattacagtacacaacaaggatgaagtgtatcaaattttagaaaag
ggggcagcaaaaaggacaactgcagctactctgatgaatgcatactctagtcgttcccactcagttttctct
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gaatctaaactaactagaatcctccaggattctcttggagggcgtagaagaacatctataattgcaacaatt
tctcctgcatctctcaatcttgaggaaactctgagtacattggaatatgctcatagagcaaaagaacatattg
aataagcctgaagtgaatcagaaatag

FIG. 10

MACQPNSSAKKKEEGKNIQVVVRCRPFNLAERKASAHSIVECDPVRKEVSVRTGGLADKSSRKTYTFDMVF
GASTKQIDVYRSVVCPIILDEVIMGYNCTIFAYGQTGTGKTFTMEGERSPNEEYTWEEDPLAGIIPRTLHQIF
EKLTNGTEFSVKVSLLEIYNEELFDLLNPSSDVSERLQMFDDPRNKRGVIIKGLEEITVHNKDEVYGILEK
GAAKRRTAATLMNAYSSRSHSVFSVTIHMKETTIDGEELVKIGKLNLDLAGSENIGRSGAVDKRAREAGNI
NQSLTLGRVITALVERTPHVPYRESKLTRILQDSLGGRTTSIIATISPASLNLEETLSTLEYAHRANKIL
NKPEVNQK

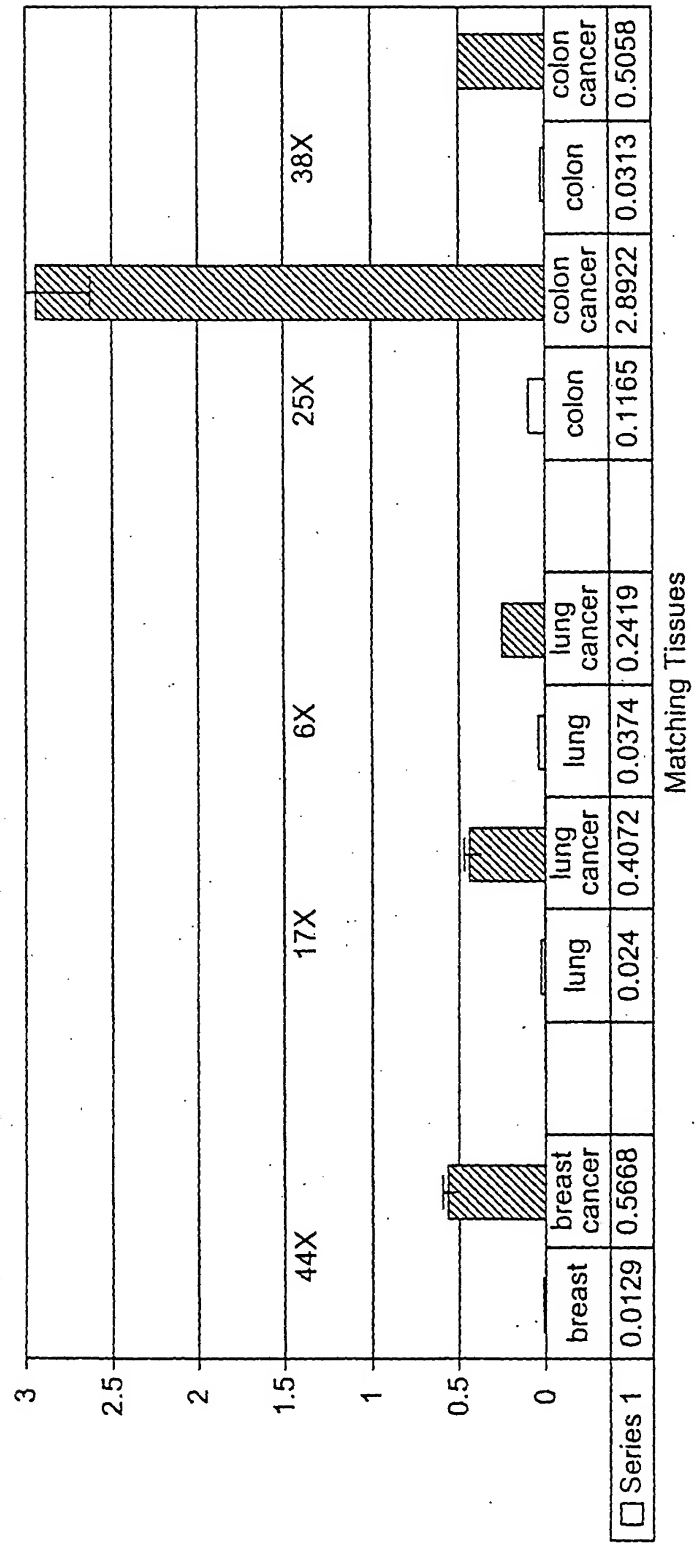


FIG. 11